

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A computer-readable medium storing having a an executable data structure for managing reproduction of at least video data having multiple reproduction paths ~~path video data recorded on the computer-readable medium by a reproducing device,~~ comprising:

one or more management areas for storing ~~path change information, the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted, the one or more management areas being separate from a data area storing the video data; and~~

~~wherein the path change information includes at least one entry point map associated with each reproduction path, each entry point map for identifying entry points in the video data for the associated reproduction path, the one or more management areas being separate from a data area storing video data,~~

wherein the entry point map includes path change information having a plurality of fields, each field associated with an entry point, and

the path change information includes including at least one flag, each flag associated with an entry point and a field for identifying whether a change in reproduction path is permitted in relation to the entry point and a field for identifying where changes in reproducing at least one of the reproduction paths of video data are permitted.

2. (Canceled)

3. (Currently Amended) The computer-readable medium of claim 1, wherein ~~flags~~ fields for permitting a change in a same associated reproduction path define one or more units of video data.

4. (Previously Presented) The computer-readable medium of claim 3, further comprising:  
a data area having at least the video data recorded therein, and at least a portion of the video data being multiplexed on a unit of video data basis.
5. (Previously Presented) The computer-readable medium of claim 4, wherein the reproduction paths of video data are different camera angles of video data.
6. (Previously Presented) The computer-readable medium of claim 3, wherein each unit of video data starts with an I-picture.
7. (Previously Presented) The computer-readable medium of claim 3, wherein each unit of video data starts with a closed group of pictures (GOP).
8. – 14. (Canceled)
15. (Currently Amended) The computer-readable medium of claim 3, wherein the entry point maps are aligned in time.
16. (Currently Amended) The computer-readable medium of claim 3, wherein an active ~~flag~~ field associated with an entry point indicates that changing reproduction paths is permitted after reproducing the entry point having the associated active ~~flag~~ field.
17. (Currently Amended) The computer-readable medium of claim 3, wherein an active ~~flag~~ field associated with an entry point indicates that changing reproduction paths is permitted before reproducing the entry point having the associated active ~~flag~~ field.

18. (Currently Amended) A method of recording a data structure for managing reproduction of at least video data having multiple reproduction paths ~~path video data~~ on a recording medium, comprising:

~~recording path change information~~ at least one entry point map in one or more management areas of the recording medium, the entry point map associated with each reproduction path, ~~the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted~~, ~~the one or more management areas being separate from a data area storing the video data; and~~

~~wherein the path change information includes at least one entry point map associated with each reproduction path~~, each entry point map for identifying entry points in the video data for the associated reproduction path, the one or more management areas being separate from a data area for storing video data,

wherein the entry point map includes the path change information having a plurality of fields, each field associated with an entry point, and ~~and including at least one flag, each flag associated with an entry point and~~ the path change information includes a field for identifying whether a change in reproduction path is permitted in relation to the entry point., and field for identifying where changes in reproducing at least one of the reproduction paths of video data are permitted.

19. (Currently Amended) A method of reproducing a data structure for managing reproduction of at least video data having multiple reproduction paths ~~path video data~~ recorded on a recording medium, comprising:

~~reproducing path change information~~ management information from one or more management areas of the recording medium, the management information including at least one entry point map associated with each reproduction path, ~~the path change information indicating~~

~~where changes in reproducing at least one of the reproduction paths of video data are permitted;~~  
~~the one or more management areas being separate from a data area storing the video data; and~~

~~wherein the path change information includes at least one entry point map associated~~  
~~with each reproduction path, each entry point map for identifying entry points in the video data~~  
~~for the associated reproduction path, the one or more management areas being separate from a~~  
~~data area for storing video data,~~

~~-wherein the entry point map includes the path change information having a plurality of~~  
~~fields, each field associated with an entry point, and including at least one flag, each flag~~  
~~associated with an entry point and the path change information includes a field for identifying~~  
~~whether a change in reproduction path is permitted in relation to the entry point, and a field for~~  
~~identifying where changes in reproducing at least one of the reproduction paths of video data are~~  
~~permitted.~~

20. (Currently Amended) An apparatus for recording a data structure for managing reproduction of at least video data having multiple reproduction paths ~~path~~ ~~video data~~ on a recording medium, comprising:

an optical recording device configured to record data on the recording medium;  
an encoder configured to encode at least multiple reproduction path video data;  
and a controller, operably coupled to the optical recording device, configured to control the optical recording device to record the encoded multiple reproduction path video data on the recording medium, the controller configured to control the optical recording device to record ~~path change information at least one entry point map~~ in one or more management areas of the recording medium, ~~the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted, the entry point map associated with each reproduction path, each entry point map for identifying entry points in the video data for the associated reproduction path,~~ the one or more management areas being separate from a data

area storing the video data; and

~~wherein the path change information includes at least one entry point map associated with each reproduction path, each entry point map identifying entry points in the video data for the associated reproduction path and including at least one flag, each flag associated with an entry point~~ the entry point map includes the path change information having a plurality of fields, each field associated with an entry point, and

the path change information includes a field for identifying whether a change in reproduction path is permitted in relation to the entry point, and a field for identifying where changes in reproducing at least one of the reproduction paths of video data are permitted.

21. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction of at least video data having multiple reproduction paths ~~path~~ video data recorded on a recording medium, comprising:

an optical reproducing device configured to reproduce data recorded on the recording medium;

a controller, operably coupled to the optical recording device, configured to control the optical reproducing device to ~~reproduce path change information~~ read entry point map from one or more management areas of the recording medium, ~~the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted,~~ at least one entry point map associated with each reproduction path, each entry point map for identifying entry points in the video data for the associated reproduction path, the one or more management areas being separate from a data area storing the video data; and

~~wherein the path change information includes at least one entry point map associated with each reproduction path, each entry point map identifying entry points in the video data for the associated reproduction path and including at least one flag~~ the entry point map includes path change information having a plurality of fields, each flag-field associated with an entry point,

and

- the path change information includes a field for identifying whether a change in reproduction path is permitted in relation to the entry point, and a field for identifying where changes in reproducing at least one of the reproduction paths of video data are permitted.

22. (Currently Amended) The method of claim 18, wherein ~~flags~~fields for permitting a change in a same associated reproduction path define one or more units of video data.

23. (Previously Presented) The method of claim 22, wherein at least one portion of the video data is recorded in a data area with being multiplexed on a unit of video data basis.

24. (Previously Presented) The method of claim 23, wherein the reproduction paths of a video are different camera angles of video data.

25. (Currently Amended) The method of claim 19, wherein ~~flags~~fields for permitting a change in a same associated reproduction path define one or more units of video data.

26. (Previously Presented) The method of claim 25, wherein at least a portion of the video data is recorded in a data area with being multiplexed on a unit of video data basis.

27. (Previously Presented) The method of claim 26, wherein the reproduction paths of video data are different camera angles of video data.

28. (Currently Amended) The apparatus of claim 20, wherein ~~flags~~fields for permitting a change in a same associated reproduction path define one or more units of video data.

29. (Currently Amended) The apparatus of claim 20, wherein an active ~~flag~~ field associated with an entry point indicates that changing reproduction paths is permitted after reproducing the entry point having the associated active ~~flag~~ field.

30. (Currently Amended) The apparatus of claim 21, wherein ~~flags~~ fields for permitting change in a same associated reproduction path define one or more units of video data.

31. (Currently Amended) The apparatus of claim 21, wherein an active ~~flag~~ field associated with an entry point indicates that changing reproduction paths is permitted after reproducing the entry point having the associated active ~~flag~~ field.

32. (New) The computer-readable medium of claim 4, wherein the data area stores a plurality of clip files, each clip file associated with each reproduction path, each clip file associated with each entry point map.

33. (New) The computer-readable medium of claim 1, wherein the entry point map maps a presentation time stamp to a source packet address.

34. (New) The computer-readable medium of claim 1, wherein the change of the reproduction path is performed if the change is permitted and execution of the change is delayed until a reproduction position reaches a position at which the change is permitted.

35. (New) The method of claim 18, wherein the entry point map maps a presentation time stamp to a source packet address.

36. (New) The method of claim 18, wherein the change of the reproduction path is performed

if the change is permitted and execution of the change is delayed until a reproduction position reaches a position at which the change is permitted.

37. (New) The method of claim 19, wherein the entry point map maps a presentation time stamp to a source packet address.

38. (New) The method of claim 19, further comprising performing the change of the reproduction path based on the path change information if the change is permitted and execution of the change is delayed until a reproduction position reaches a position at which the change is permitted.

39. (New) The apparatus of claim 20, wherein the entry point map maps a presentation time stamp to a source packet address.

40. (New) The apparatus of claim 20, wherein the controller is configured to perform the change of the reproduction path if the change is permitted and execution of the change is delayed until a reproduction position reaches a position at which the change is permitted.

41. (New) The apparatus of claim 21, wherein the entry point map maps a presentation time stamp to a source packet address.

42. (New) The apparatus of claim 21, wherein the controller is configured to perform the change of the reproduction path if the change is permitted and execution of the change is delayed until a reproduction position reaches a position at which the change is permitted.